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March 1, 1999

David Waddell
Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37243-0505


Re: *Petition by e.spire Communications, Inc. for Arbitration with BellSouth
Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996*
Docket No. 98-00834

Dear Mr. Waddell:

The parties to the above-captioned proceeding have previously agreed to a procedural schedule which called for the filing of discovery on March 1. Although, the Authority has not formally approved that schedule, e.spire is today filing its discovery questions for BellSouth.

Very truly yours,

BOULT, CUMMINGS, CONNERS & BERRY, PLC


Henry Walker

HW/nl
Enclosure
cc: Guy Hicks

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EXECUTIVE SECRETARY

**Before the
TENNESSEE REGULATORY AUTHORITY**

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OFFICE OF THE
EXECUTIVE SECRETARY

**In re: Petition by e.spire Communications Inc.)
for Arbitration with BellSouth Telecommunications,)
Inc., Pursuant to the Telecommunications Act of 1996)**

Docket No. 98-00834

**E.SPIRE COMMUNICATIONS INC.'S FIRST SET OF DATA REQUESTS
DIRECTED TO BELL SOUTH TELECOMMUNICATIONS, INC.**

E.SPIRE COMMUNICATIONS, INC. ("e.spire"), by its attorneys, hereby requests that BellSouth Telecommunications, Inc. ("BellSouth") respond to the following data requests in the manner and within the timeframe prescribed by the rules of the Tennessee Regulatory Authority.

DEFINITIONS AND INSTRUCTIONS

1. For the purposes of these data requests, the following definitions shall apply:

"Documents" is used in the broadest sense and includes all tangible things that record information, whether or not such things are in BellSouth's possession, custody or control, and regardless of who prepared or signed them. "Documents" includes both the original and any copy or draft, and all copies which contain any notation not on the original. Examples of "documents" include, but are not limited to, handwritten, typed or printed papers, handwritten notations, office notes, calendar entries, diaries, notes of telephone conversations, photographs,

reports, receipts, invoices, memoranda, correspondence, notes, ledger entries, and computer printouts, cards, tapes, disks, and other means of electronically or magnetically maintained information.

“Identify” means (1) when used with reference to a natural person, give the person’s full name, business or residence address, business or residence telephone numbers, occupation and employer; (2) when used with reference to an entity, give the entity’s full name, principal place of business, address and telephone number; (3) when used with reference to a document, give the document’s date, title, author, recipient, type (e.g., letter, memorandum, note, etc.), name of the custodian of the document, and a description of the contents with sufficient specificity to be the basis for discovery; and (4) when used with reference to an action taken by an entity, identify the person(s) taking the action, describe the nature of the action, and give the date on which the action was taken. If any action identified pursuant to (4) involved a communication with another person, identify the person(s) with whom the actor(s) communicated; and, if the communication was through the use of a document, identify the document through which the communication was made.

“Person” includes a natural person, partnership, joint venture, firm, corporation, association, organization, or any other type of business or legal entity.

“CAP” means a competitive access provider.

“CLEC” means a competitive local exchange carrier.

“ILEC” means an incumbent local exchange carrier.

“LEC” means a local exchange carrier, including but not limited to CLECs and ILECs.

“IXC” means an interexchange carrier.

“LRIC” means long run incremental cost.

“PCS” means personal communications service.

“SMR” means specialized mobile radio services.

“TSLRIC” means total service long run incremental cost.

“TELRIC” means total element long run incremental cost.

2. If the answers to any of the following data requests could be provided through the production of existing documents within BellSouth’s possession or control, or within the possession or under the control of any of its representatives, including its attorneys, e. spire will accept such production in lieu of written answers to any such data requests

3. Provide the names, addresses and positions of each person responsible for preparing each of the answers to the following data requests, and for each person providing information used in the preparation of each answer.

4. If you maintain that any document or record which refers to or relates to anything about which these data requests ask or that would be responsive to any of the data requests has been destroyed, set forth the content of said document, the location of any copies of said document, the date and circumstances of said destruction and the name of the person who ordered or authorized such destruction.

5. In answering these data requests, furnish all information and responsive documents in the possession of BellSouth or in the possession of any director, officer, employee, agent, representative, or attorney of BellSouth.

6. If you cannot answer any data request in full after exercising due diligence to secure all the information requested, or do not have precise information with regard to any part of a data request, you should so state, describing in full your efforts to obtain the information requested, and then proceed to answer to the fullest extent possible.

7. When the information requested by a data request varies over time, state the response for each period of time as to which the response differs, and identify the time periods applicable to each portion of the response.

8. Where the data requested, including but not limited to cost studies and related information, is or can be made available on diskette, please provide the documentation on diskette and indicate what the format in which the data reside.

DATA REQUESTS

The following data requests should be answered separately, fully and served on e.spire's counsel. Each of the following data requests is intended to be a continuing data request; in the event that at any later date BellSouth obtains any additional facts or documentation, or forms any conclusions, opinions or contentions that are different from those set forth in its answers to such data requests, BellSouth shall amend and/or supplement its answers to such data requests promptly, and sufficiently in advance of any hearing on this matter before the Authority.

- e1. Please name each CAP, CLEC, other LEC, or IXC with which BellSouth has entered into an interconnection agreement within the last ten years in Tennessee. State the date on which such agreement was executed and briefly describe the nature of each such agreement.
- e2. Please provide copies of all interconnection agreements between BellSouth and any CAP, CLEC, other LEC, or IXC referenced in your response to data request e.spire-1 above.
- e3. Please provide copies of all interconnection agreements into which BellSouth has entered with any cellular telephone, PCS, SMR or other local wireless provider.
- e4. Please provide copies of the most recent cost studies prepared by or for BellSouth which show the recurring and non-recurring cost of providing each of the following types of local loops as an unbundled network element:
 - a. 2-Wire Analog Voice Grade Loop(s)
 - b. 4-Wire Analog Voice Grade Loop(s)
 - c. 2-Wire ISDN Digital Grade Link(s) (BRI ISDN)
 - d. 2-Wire ADSL-Compatible Loop(s)
 - e. 2-Wire HDSL-Compatible Loop(s)
 - f. 4-Wire HDSL-Compatible Loop(s)

- g. DS1 Loops
- h. DS3 Loops
- i. OC3 Loops
- j. OC12 Loops
- k. OC48 Loops

Please separately identify non-recurring costs, recurring costs, fixed costs and distance-related costs. In addition, please breakdown the cost information provided to either: (1) specify the localities where e.spire has requested interconnection or, if not available, (2) reflect costs at a disaggregated basis below the statewide level such as by exchange, switching center or density cell. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.

- e5. Please provide the most recent cost studies prepared by or for BellSouth which show the recurring and non-recurring cost of providing analog and digital cross-connections required to connect an unbundled local loop to the e.spire system and/or other telecommunications carrier systems. If the cost study pertains to other telecommunications carriers, please identify the carriers. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.

- e6. Please provide the most recent cost studies prepared by or for BellSouth which show the recurring and non-recurring cost of providing channelization and/or multiplexing required to convert (a) voice-grade unbundled loops to DS-1 level for connection with the e.spire and/or other telecommunications carrier point of interface and (b) DS-1 unbundled loops to DS-3 level for connection with the e.spire and/or other telecommunications carrier point of interface. If the cost study pertains to other telecommunications carriers, please identify the telecommunications carriers. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.
- e7. Please provide the most recent cost studies prepared by or for BellSouth which show the recurring and non-recurring cost of providing interoffice transport to e.spire or other telecommunications carriers as may be required to transport traffic from BellSouth's end office where unbundled loops are ordered to another BellSouth end office or tandem switch. Please identify the cost separately for DS-1 dedicated, DS-3 dedicated and tandem switched transport. To the extent cost studies for higher bandwidth interoffice transport are available, please provide same separately. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data

sources, data inputs and assumptions; and a complete set of cost study documentation.

- e8. Please provide the most recent cost studies prepared by or for BellSouth relating to local traffic transport and termination (including end office switching, transport and tandem switching). Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.
- e9. Please identify each cost study prepared by or for BellSouth or any of its affiliates or prepared for BellSouth or any of its affiliates for services utilizing the network components included in the network elements identified below. The materials sought includes a complete working copy of all computerized cost study modules with data intact; a complete set of workpapers including all special studies, data inputs and data sources used; a complete set of cost study documentation.
- a. 2 or 4 wire analog voice grade loops
 - b. ISDN digital grade loops
 - c. xDSL compatible loops
 - d. DS0, DS1 or DS3 loops
 - e. OC3, OC12 or OC48 loops
 - f. local channels
 - g. DS1, DS3, OC3, OC12, OC48 interoffice transport

- e10. Please explain in detail what activities are required for BellSouth to provide an unbundled local loop when an existing BellSouth exchange service customer elects to switch an existing line to e.spire as the provider of its local service. In addition, please provide all cost studies which identify the non-recurring costs associated with switching an existing BellSouth local exchange customer to e.spire. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation. For each such cost study, explain the pricing methodology used (e.g., TELRIC, TSLRIC, LRIC, etc.).
- e11. Please explain in detail what activities are required of BellSouth to provide an unbundled local loop to e.spire and to establish service for a new customer which has chosen e.spire as its provider of local service. In addition, please provide all cost studies which identify the costs of these activities. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.
- e12. Please provide copies of any written explanations which describe the manner in which BellSouth's existing non-recurring charges ("NRCs") for local exchange service were established. Also provide any cost studies which have been prepared

by or on behalf of BellSouth to support those NRCs, and for each such cost study identify the pricing methodology used.

- e13. Please provide a complete explanation of the manner in which the NRC BellSouth assesses when a customer elects to change its presubscribed long-distance carrier was established. Also provide any cost studies which have been prepared to support that NRC. For each such cost study, explain the pricing methodology used (e.g., TELRIC, TSLRIC, LRIC, etc.).
- e14. Please describe specifically and in detail how BellSouth computed its proposed non-recurring and recurring charges for unbundled local loops. To the extent appropriate, please particularize your response according to loop types.
- e15. Please describe specifically and in detail how BellSouth computed its proposed non-recurring and recurring charges for cross-connections required to connect an unbundled local loop to the e.spire system. To the extent appropriate, please particularize your response according to analog and digital cross-connections.
- e16. Please describe specifically and in detail how BellSouth computed its proposed non-recurring and recurring charges for (a) providing channelization and/or multiplexing required to convert voice-grade unbundled loops to DS-1 level for connection with the e.spire point of interface and (b) providing channelization and/or multiplexing required to convert DS-1 unbundled loops to DS-3 level for connection with the e.spire point of interface.
- e17. Please describe specifically and in detail how BellSouth computed its proposed non-recurring and recurring charges for unbundled interoffice transport for use in

connecting end offices where unbundled loops are ordered to other tandem switches or end offices.

- e18. Please describe any technical, operational, or other impediment, if any, to allowing two telecommunications carriers, both of whom are collocated with BellSouth in the same BellSouth central office, to directly cross-connect to one another.
- e19. Please provide copies of any documents in the possession of BellSouth relating to the ability or advisability of multiple telecommunications carriers which are collocated in the same BellSouth central office cross-connecting directly with one another.
- e20. Please identify all orders issued by the Commission granting BellSouth customer specific contracting authority. Also, please provide copies of the relevant sections of all such orders.
- e21. Please identify the sections of BellSouth's tariff(s) identifying and/or describing BellSouth's contracting authority and the sections identifying the products and services available to which such contracting authority applies. Also, please provide copies of the portions of tariffs identified.
- e22. Please identify all services that BellSouth provides pursuant to customer specific contract arrangements.
- e23. Please state whether BellSouth is required to provide a revenue/cost comparison or other cost related support for its customer specific, end-user contracts. If so, please provide a complete copy of the most recently conducted cost study for each service offered pursuant to BellSouth's contracting authority. If the cost information produced by BellSouth drew from other cost studies, please provide the complete

cost study drawn upon. (For instance, if a service offered through contract includes DS1 transport and the cost information developed drew upon the results of an earlier conducted DS1 transport study, please provide a complete copy of that DS1 transport study.) Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.

- e24. List and describe the types of loops BellSouth makes available to CLECs in Tennessee. For each such loop:
- a. define the functionality of the loop;
 - b. state the applicable charges;
 - c. provide the cost studies underlying the charges therefor;
 - d. state whether electronics are included in the loop charges; to the extent to which electronics are reflected in the loop charges, identify what portion of the loop charges is attributable to electronics;
 - e. state whether time and motion studies relating to the loop have been prepared by or on behalf of BellSouth; if such studies exist, please describe the studies and provide copies of any and all documents having to do with the studies;
 - f. state whether BellSouth has agreed to provide the loop to e.spire;
 - g. state whether the loop is available in other BellSouth states, and identify the states in which the loop is available.

- e25. List and describe the types of digital and/or high-capacity loops BellSouth makes available to CLECs in Tennessee. To the extent not provided in response to a previous question:
- a. define the functionality of the loop;
 - b. state the applicable charges;
 - c. provide the cost studies underlying the charges therefor;
 - d. state whether electronics are included in the loop charges; to the extent to which electronics are reflected in the loop charges, identify what portion of the loop charges is attributable to electronics;
 - e. state whether time and motion studies relating to the loop have been prepared by or on behalf of BellSouth; if such studies exist, please describe the studies and provide copies of any and all documents having to do with the studies;
 - f. state whether BellSouth has agreed to provide the loop to e.spire;
 - g. state whether the loop is available in other BellSouth states, and identify the states in which the loop is available.
- e26. State whether the charges for high-capacity or digital loops vary. If the charges do vary, explain the factors justifying the cost differentials.
- e27. Is there a difference between ADSL (or xDSL)-compatible loop and ADSL (or xDSL) standard loop? If your response is in the affirmative, please explain the difference(s) in terms of functionality and charges therefor.
- e28. State whether BellSouth will perform loop conditioning pursuant to CLEC request. If the answer is in the affirmative, state the applicable charges for loop

conditioning. To the extent loop conditioning charges vary by loop type, identify and explain the variations. Have cost studies been prepared by or on behalf of BellSouth supporting its loop conditioning charges? If the answer is in the affirmative, please provide any and all studies relating to loop conditioning charges, and identify the pricing methodology used.

e29. Have studies, evaluations, and/or analyses been prepared by or on behalf of BellSouth relating to spectrum management? If the answer is in the affirmative, please describe the studies, evaluations, and/or analyses, and provide copies of any and all documents relating to such studies, evaluations, and/or analyses.

e30. Have cost studies been prepared by or on behalf of BellSouth relating to:

- a. dedicated interoffice transport of any type;
- b. LIGHTgate/SMARTgate;
- c. SMARTpath; or
- d. SMARTring?

If the answer is in the affirmative, for each of the items enumerated above, provide:

- a. the relevant cost study;
- b. an explanation of the costing methodology used.

e31. With respect to BellSouth's ADSL Service referenced in BellSouth's FCC Transmittal No. 476 (dated Aug. 18, 1998), have cost studies been prepared by or on behalf of BellSouth? If the answer is in the affirmative, please (a) describe the cost studies, (b) provide any and all documents relating to the cost studies, (c) identify the costing methodology used, (d) state whether loop recurring costs are reflected in the cost studies, (e) state whether loop conditioning costs are reflected

in the cost studies, and (f) state whether electronics are included in the cost studies. Please provide a complete copy of the ADSL service cost studies. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.

- e32. With regard to BellSouth's Frame Relay Service,
- a. please describe the elements comprising the service;
 - b. describe the charges therefor;
 - c. provide any cost studies prepared by or on behalf of BellSouth relating to Frame Relay. Please provide the complete working copy of each cost study, including a complete working copy of all computerized models involved in preparing the cost estimate with data intact; a complete set of workpapers with all special studies, data sources, data inputs and assumptions; and a complete set of cost study documentation.
- e33. Assume an end user on e.spire's frame relay network seeks to establish a permanent virtual connection ("PVC") with a customer on BellSouth's frame relay network, and e.spire sought to establish an interconnection between the two carriers' frame relay switches to facilitate the establishment of such PVC.
- a. Identify each component of such interconnection for which BellSouth would propose to charge e.spire.
 - b. What would BellSouth propose to charge e.spire for each such component identified in part (a)?

- c. To the extent not provided elsewhere, identify (“TELRIC”) costs for each such component. Provide copies of all cost studies and models used to establish the TELRIC costs identified in part (c), including workpapers, special studies, and other documentation.
 - d. Identify any charges that BellSouth would continue to assess its end user customers were such a PVC established.
- e34. Assuming Section 251(c)(2) of the Act applies to frame relay interconnection, please provide BellSouth’s proposals for the terms and conditions (including any charges or rates) for the following elements of a frame relay interconnection agreement between the parties for the establishment of PVCs with both ends of the PVC located within the same LATA.
- a. Network-to-network interface ports at each party’s; i.e., BellSouth’s and e.spire’s, frame relay switch used in establishing a PVC between end user locations.
 - b. Transport between the carrier’s frame relay switches used in establishing a PVC.
 - c. The exchange of bi-directional traffic over a PVC service to the end-user location.
 - d. Transport and termination of frame relay traffic by one carrier that originates on the frame relay network of the other carrier.
 - e. Responsibility of each carrier to establish Data Link Connection Identifiers (“DLCI”) to provide PVCs between end user locations on their

respective networks and inform the other carrier of the establishment of the DLCI.

- f. The forms to be used to order frame relay interconnection.
- g. The interfaces available to e.spire for ordering frame relay interconnection.
- h. Maintenance and trouble reporting.
- i. Oversubscription policies.
- j. Conditions/utilization policies for adding additional PVCs between the parties' frame relay switches.
- k. Conditions for ordering T-3 connections between the parties' frame relay switches.
- l. Frame relay transiting arrangements involving a third party LEC interconnection.
- m. Minimum installation intervals, firm order confirmation dates, performance reporting, penalties.
- n. Transition of frame relay interconnection currently ordered pursuant to tariff to frame relay interconnection to be ordered pursuant to Section 251(c).

e35. Would BellSouth's response to the above Data Request be the same if the two end user locations were in different LATAs?

- a. If yes, identify each item a-n separately for which the answer is yes.
- b. If the answer is no, please explain in detail what would be different (for each item a-n not identified in (a) as a yes response).

- c. If the answer is no, who would BellSouth charge for the logical link between the end user location and the user-to-network interface? Who would be charged for the UNI? Who would be charged for establishing the DLCIs? Against whom would BellSouth assess CIR charges?
 - d. For each component identified in sub-part (c) of this Data Request for which BellSouth would assess a charge, please identify the TELRIC costs. To the extent not provided in response to an earlier Data Request, please provide copies of all cost studies and models used to establish the TELRIC cost identified in part (d) of this Data Request, including workpapers, special studies, and other documentation.
- e36. Please identify all evidence establishing or relied upon by BellSouth to prove that its proposed rates and terms for frame relay are just and reasonable, and based on cost, including a reasonable profit.
- e37. Identify and provide copies of any frame relay interconnection arrangements that BellSouth has executed with any other provider of frame relay services. For purposes of this request, a “frame relay interconnection agreement” is any agreement that contains provisions related to the connection of one or more of BellSouth’s frame relay switches in, or serving customers in, this state to one or more frame relay switches of the other provider for the transport of frame relay traffic from one frame relay switch to another. Frame relay interconnection agreements are limited to such agreements entered into by BellSouth since February 6, 1996 and includes any such agreement whether or not submitted to the Commission for approval under the 1934 Act.

- e38. State BellSouth's reciprocal compensation rate for the transport and termination of local traffic in 1996. Has BellSouth's rate changed since then? If the answer is in the affirmative, what is BellSouth's cost justification for reducing the rate? Have cost studies been prepared by or on behalf of BellSouth relating to reciprocal compensation for the transport and termination of local traffic? If the answer is in the affirmative, please describe any such study and provide any and all documents relating to same.
- e39. Does BellSouth believe that ISP traffic is not local traffic for purposes of reciprocal compensation? If the answer is in the affirmative:
- a. state the basis for your opinion;
 - b. state whether cost studies have been prepared by or on behalf of BellSouth demonstrating the cost differences, if any, between transporting and terminating ISP-bound traffic and other types of local traffic; if such cost studies are available, describe the cost studies and provide any all documents relating to same;
 - c. describe the mechanism, if any, upon which BellSouth intends to rely to identify ISP-bound local traffic (dial-up) and segregate it from other local traffic.
- e40. Does BellSouth have a procedure for qualifying and/or identifying xDSL-capable loops? If the answer is in the affirmative, please explain the process (e.g., is it done manually or electronically, remotely or on-site, etc?). Does BellSouth maintain a data base containing loop characteristics, types, etc.? Is this data base regularly updated? If the answer is in the affirmative, how often is it updated and who

maintains it? In the process of qualifying and/or identifying xDSL-capable loops, what costs, if any, are incurred by BellSouth?

- e41. What does BellSouth consider to be the maximum loop length for xDSL-compatible loops? Please explain. Under what circumstances can xDSL be made available over longer loops (i.e., is there additional investment which would increase the maximum loop length for an xDSL compatible loop)?
- e42. Please identify the number of loops in BellSouth's territory which meet the maximum loop length standard specified in the response to the above question.
- e43. With respect to the interconnection negotiation between e.spire and BellSouth, has BellSouth reviewed e.spire's list of resolved issues? If the answer is in the affirmative, does BellSouth concur with e.spire's list? If you do not concur with e.spire, or you have not yet reviewed e.spire's list of resolved issues, please identify the resolved issues on which you believe e.spire and BellSouth have agreed.
- e44. Have you reviewed e.spire's list of unresolved issues? If the answer is in the affirmative, do you agree that those issues are unresolved? If you do not agree that those issues are unresolved, or have not reviewed e.spire's list, identify the issues which, in your opinion, are unresolved.
- e45. What types of loops has BellSouth agreed to provide to e.spire? Have cost-based rates been established for those loops? If the answer is in the negative, please explain why cost-based rates are not available. Has e.spire requested any loop which BellSouth is either (a) unwilling to provide, or (b) incapable of providing? If the answer is in the affirmative, identify those loops and the reason why BellSouth is unwilling to provide or incapable of providing them. Has any

telecommunications carrier, other than e.spire, requested BellSouth to provide the types of loops that BellSouth has refused to provide to e.spire? If the answer is in the affirmative, has BellSouth refused to provide them?

e46. What types of interoffice transport has BellSouth agreed to provide to e.spire? Have cost-based rates been established for them? If the answer is in the negative, please explain why cost-based rates are not available. Has e.spire requested a type of interoffice transport which BellSouth is either (a) unwilling to provide, or (b) incapable of providing? If the answer is in the affirmative, identify the types of interoffice transport and the reason why BellSouth is unwilling to provide or incapable of providing them. Has any telecommunications carrier requested BellSouth to provide the same types of interoffice transport that BellSouth has refused to provide to e.spire? If the answer is in the affirmative, has BellSouth refused to provide them?

e47. Has e.spire requested that BellSouth provide a "local channel" UNE? If the answer is in the affirmative, has BellSouth agreed to provide it to e.spire? If the answer is in the affirmative, what types of local channel is BellSouth willing to provide to e.spire? Have cost-based rates been established for them? If the answer is in the negative, please explain why cost-based local channel UNE rates are not available. If BellSouth has not agreed to provide local channel UNEs to e.spire, please explain BellSouth's basis for doing so. Has any telecommunications carrier, other than e.spire, requested BellSouth to provide local channel UNEs? If the answer is in the affirmative, has BellSouth refused to provide them?

- e48. Is it BellSouth's opinion that it is not legally required to provide local channel facilities to interconnect BellSouth's and e.spire's end offices? If the answer is in the affirmative, please provide the basis for BellSouth's opinion.
- e49. Can "Local Channel Dedicated" be used to interconnect BellSouth's and e.spire's end offices? Please explain.
- e50. Has e.spire requested BellSouth to provide packet-switching UNEs? If the answer is in the affirmative, please list the packet-switching UNEs e.spire has requested BellSouth to provide. Has BellSouth agreed to provide them? If the answer is in the affirmative, for each such UNE, please state the applicable rates. If the answer is in the negative, state the reason why BellSouth has refused to provide the requested UNEs. Has any telecommunications carrier requested that BellSouth provide packet-switching UNEs of the type requested by e.spire? If the answer is in the affirmative, has BellSouth refused to provide those UNEs? Does BellSouth provide packet-switching UNEs to any telecommunications carrier in (a) Tennessee, and (b) elsewhere in its territory?
- e51. Has any telecommunications carrier requested BellSouth to provide a Local Channel-Dedicated? If the answer is in the affirmative, describe the manner in which that UNE is used currently being used.
- e52. Has e.spire requested interconnection at BellSouth's remote terminals? If the answer is in the affirmative, has BellSouth agreed to provide such interconnection? If BellSouth has not agreed to provide interconnection at remote terminals, state the basis for BellSouth's refusal. Has any telecommunications carrier, other than

- e.spire, requested interconnection at remote terminals? If the answer is in the affirmative, has BellSouth refused the request?
- e53. Has e.spire requested that BellSouth provide remote terminal equipment (e.g., DSLAM) as a UNE? If the answer is in the affirmative, state whether BellSouth has agreed to provide it. If BellSouth has not agreed to provide remote terminal equipment as a UNE, state the basis for BellSouth's refusal. Has a telecommunications carrier, other than e.spire, requested that BellSouth provide remote terminal equipment as a UNE? If the answer is in the affirmative, has BellSouth refused the request?
- e54. How many loops in Tennessee are served by BellSouth through (a) IDLCs, (b) UDLCs, (c) NDLCs, and (d) other digital loop carriers? How many loops or access lines does BellSouth have in Tennessee?
- e55. What percentage of BellSouth's total loops in Tennessee:
- a. terminate at a remote terminal?
 - b. can be considered "clean copper loops" (i.e., without load coils or bridged taps)?
 - c. are longer than 18,000 feet?
 - d. are xDSL-capable?
 - e. have been conditioned to carry high-capacity services?
- e56. How many remote terminals and/or environmentally controlled vaults does BellSouth have in Tennessee? For each such remote terminal, identify the number of loops served by the remote terminal. Of these remote terminals, how many have

adequate space for collocation? How many of these remote terminals have DSLAMs resident in them?

- e57. Is it BellSouth's contention that there are technical and/or operational impediments to providing access to remote terminals? If the answer is in the affirmative, please explain these technical and/or operational impediments.
- e58. Has e.spire requested that BellSouth provide interoffice multiplexing? If the answer is in the affirmative, has BellSouth agreed to provide it? If BellSouth has not agreed to provide it, please state the basis for BellSouth's refusal. Has BellSouth proposed an alternative? If the answer is in the affirmative, please describe the proposed alternative and explain why the proposal is reasonable.
- e59. Is it BellSouth's position that e.spire must collocate in order to combine two or more UNEs? If the answer is in the affirmative, explain the basis for BellSouth's position. Would BellSouth, under any circumstance, agree to combine UNEs? If the answer is in the affirmative, please describe these circumstances and state what charges, if any, BellSouth would impose for combining UNEs. Has any State public utility commission required BellSouth to combine UNEs? Has BellSouth combined UNEs on behalf of a telecommunications carrier in Tennessee?
- e60. How many central offices does BellSouth have in Tennessee? Of these, how many do not have sufficient space for collocation? Has BellSouth filed a waiver of physical collocation requirements in Tennessee? If the answer is in the affirmative, identify (a) the number of waivers BellSouth has filed, and (b) the central offices for which such waivers have been filed.

- e61. Other than virtual collocation, what alternatives to physical collocation does BellSouth offer in Tennessee?
- e62. Has BellSouth agreed to provide an “Enhanced Extended Link” or “EEL” alternative in Tennessee? If the answer is in the negative, state the reason(s) for BellSouth’s refusal to provide EEL.
- e63. Has BellSouth agreed to provide shared caged collocation in Tennessee? If the answer is in the negative, state the reason(s) for BellSouth’s refusal to provide shared caged collocation. If the answer is in the affirmative, has BellSouth agreed to allow subleasing of collocation space? If BellSouth has not agreed to allow subleasing, state the basis for BellSouth’s refusal.
- e64. Has BellSouth agreed to permit cross-connection between collocated CLECs? If the answer is in the negative, state BellSouth’s reason(s) for its refusal. If the answer is in the affirmative, are cross-connecting collocated CLECs required to purchase facilities (e.g., cable transmission service) from BellSouth for purposes of cross-connections?
- e65. Does BellSouth provide cageless collocation? If the answer is in the negative, state BellSouth’s reason(s) for not providing cageless collocation. If the answer is in the affirmative, what types of cageless collocation does BellSouth provide (e.g., does BellSouth allow commingling of its equipment with the CLECs’ equipment)? Has BellSouth established guidelines (i.e., terms and conditions) and/or rates for cageless collocation and if the answer is in the affirmative what are the rates, terms and conditions?

- e66. Does BellSouth restrict the number of collocation requests a CLEC may submit at any one time? If the answer is in the affirmative, (a) state the basis for this restriction, and (b) identify the number of collocation requests a CLEC may submit within specified timeframes.
- e67. Does BellSouth permit CLECs to reserve space for future use? If the answer is in the negative, state the reason(s) for its refusal. If the answer is the affirmative, does BellSouth impose a time certain within which the CLEC must use its reserved space before it reverts back to BellSouth?
- e68. Does BellSouth require CLECs to use BellSouth-certified vendors to extend power cabling to BellSouth's power distribution frame? If the answer is in the affirmative, what is the basis for that requirement?
- e69. Does BellSouth charge CLECs based on the fused capacity of the collocated equipment, rather than on the amount of power actually consumed? If the answer is in the affirmative, what is the basis for this requirement?
- e70. Does BellSouth require security escorts for CLEC access to restricted areas within BellSouth's central offices? If the answer is in the affirmative, what is the basis for this requirement? How much does BellSouth charge for security escort?
- e71. Please state the recurring and nonrecurring rate elements for physical collocation. Explain how BellSouth allocates the costs of space preparation among CLECs.
- e72. With regard to telephone plant indexes ("TPIs"), please provide:
- a. a complete explanation of how the TPI values for past years are developed. Please provide the studies, analyses and workpapers showing their development;

- b. a complete explanation off how TPI values for future years, i.e., projections, are prepared. Please provide the studies, analyses and workpapers showing their development.
- c. Please identify each of the years, 1990 to the present, in which BellSouth prepared or had prepared for it a set of TPI estimates and projections;
- d. For each set of TPIs identified in response to the above, please provide the TPI estimates and projections for the years 1990-2000 for each of accounts and subaccounts;
- e. Please identify the time period (e.g., year) in which the TPIs used in the BellSouth TELRIC studies were developed;
- f. Please identify all macroeconomic assumptions made (e.g., those for inflation, productivity, GDP growth) in preparing the TPI projections used in the BellSouth TELRIC studies; and
- g. With regard to the TPIs used in the BellSouth TELRIC and studies, please identify the projections for TPIs by account and subaccount detail for 1997 and 1998 if all rates of inflation were one-half of a percentage point lower than assumed in the projection actually made, all other assumptions remaining unchanged. If the calculation as requested cannot be provided, please explain why. If additional information is needed, please identify with specificity exactly what the additional information is and how it is to be used.

e73. Please identify any capacity restrictions on available collocation space.

- e74. Does BellSouth currently provide an extended link arrangement in conjunction with any services offered? If so, please identify each such service arrangement and provide a copy of the service agreement which? Please provide any cost studies prepared in support of the charges for this arrangement.
- e75. Please identify each UNE requested by e.spire that BellSouth is unwilling to provide and explain why BellSouth is unwilling to provide that UNE.
- e76. Does BellSouth agree with the FCC's conclusions in the 706 Order (Advanced Services Order), that all unbundling, including that applicable to Advanced Services, should be subject to only constraints of technical feasibility. If not, please explain. Also, explain how BellSouth would propose to establish the "technically feasible" limits.
- e77. a. Please identify the number of physical collocation jobs where construction has been completed or closed. Please identify the number physical collocation construction jobs that have not been completed or closed.
- b. For each collocation construction job that has been completed or closed by the BellSouth network organization, please provide a detailed explanation of the work and equipment BellSouth performed and provided (including work BellSouth contracted from third parties) and an analysis of the costs BellSouth has incurred using the elements included in the BellSouth tariff. In addition, please reconcile this explanation and analysis with, time sheets, and other documents describing the costs BellSouth actually incurred. Please also provide the study or the estimates of required time and tasks upon which BellSouth based its quotes to CLECs.

- c. For each collocation construction job that has not been completed or closed by the network organization, please provide a detailed explanation of the work or required tasks on which BellSouth based its quote and an analysis of the costs BellSouth estimated that it will incur using the elements identified by BellSouth in its tariff.
- d. Does BellSouth utilize outside contractors to perform any work functions associated with building physical collocation spaces and other arrangements? If yes, please identify the name and address of each such contractor and the types of work performed by each contractor.

e78. Please provide the actual costs BellSouth incurred for each physical collocation arrangement that has been completed to date, as well as invoices and other documents supporting those cost figures, separately for the following categories:

- a. Physical construction, including creation of the physical collocation cage spaces;
- b. The creation of any conduit runs for electrical and telecommunications-related cabling;
- c. Electrical work including but not limited to backup battery power supplies;
- d. Mechanical work associated with the addition or extension of air conditioning (HVAC) systems and associated duct work and control systems; and
- e. Any other physical collocation construction and/or space preparation costs not identified in BellSouth's responses to subparts (1) through (5) above.

e79. Please provide the nonrecurring tariffed rates and tariff cite for installing each of the following services in Tennessee:

- a. 1FB
- b. 1FR
- c. PBX trunk
- d. Centrex
- e. DS1 loop
- f. DS3 loop
- g. 4 wire loop
- h. ISDN
- i. ADSL

e80. Please provide a complete explanation of the differences in activities and nonrecurring costs involved in the service order processing, engineering, connect and test, and technician travel time between each of the following:

- a. 1FB and 2 wire analog voice grade loop UNE
- b. 1FR and 2 wire analog voice grade loop UNE
- c. PBX trunk and 2 wire analog voice grade loop UNE
- d. Centrex line and 2 wire analog voice grade loop UNE
- e. ISDN and 2 wire ISDN digital grade loop UNE
- f. ADSL and 2 wire ADSL compatible loop UNE
- g. 4 wire DS1 and 4 wire DS1 digital loop UNE

- e81. Please provide all nonrecurring cost studies performed in the last five years pertaining to unbundled loops or to any service that includes the loop (e.g., local residential or local business).
- e82. Please explain what steps BellSouth takes in conducting recurring and non-recurring cost studies to ensure that double recovery does not occur. Is there a specific labor factor adjustment in the recurring cost model factor development which is used to eliminate non-recurring charge activities from the overall labor factor? If so, please provide an explanation of such adjustment. If not, what mechanism is used?
- e83. Does BellSouth offer loop conditioning as a tariffed service? If so, please provide tariff cite(s). If not, please explain how it is provided.
- e84. Has BellSouth agreed to allow e.spire to hire BellSouth-approved independent contractors to perform installation, maintenance, UNE combination, etc., in a virtual collocation arrangement? If the answer is in the negative, state the basis for BellSouth's refusal. If the answer is in the affirmative, state whether BellSouth would require the use of security escort while work is being done.
- e85. Is it BellSouth's policy to require the transfer of CLEC title to virtually collocated equipment to BellSouth? If the answer is in the affirmative, provide the basis for such a requirement.
- e86. Has e.spire proposed a network conversion plan for converting its embedded base to UNEs? If the answer is in the affirmative, has BellSouth agreed to the proposed plan? If BellSouth has not agreed to the proposed plan, state the basis for BellSouth's refusal. How does BellSouth intend to effect the conversion of

e.spire's embedded base to UNEs? What charges, if any, does BellSouth intend to charge e.spire for the conversion? Does BellSouth intend to do the conversion on a mechanized basis? If conversion can be done on a mechanized basis, please explain the process. If the conversion cannot be done on a mechanized basis, how does BellSouth intend to perform the conversion? How many circuits per day has BellSouth committed to convert to UNEs. What is the basis for this restriction?

- e87. Has BellSouth committed to provide volume and term discounts to e.spire for (a) unbundled local loops, (b) dedicated transport, and (c) local channel elements? If the answer is in the negative, state BellSouth's basis for its refusal to provide volume and term discounts for these UNEs.
- e88. Has BellSouth committed to provide volume and term discounts to e.spire for (a) frame relay service, (b) xDSL service, and (c) 1FB business lines? If the answer is in the negative, state the reason for BellSouth's refusal to commit to volume and term discounts for certain resold services. If the answer is in the affirmative, state the level of discount BellSouth is willing to provide to e.spire.
- e89. Has BellSouth committed to provide e.spire the same pricing proposals as are provided to BellSouth's internal retail organizations or affiliates, including a discount in competitive situations? If the answer is in the negative, state BellSouth's reason for its refusal.
- e90. In a competitive bid situation, has BellSouth ever offered more favorable terms, conditions, and pricing to its retail unit than those provided to CLECs competing for the same contract? If the answer is in the affirmative, please explain.

- e91. Does BellSouth permit the resale of contract service arrangements (“CSAs”) at wholesale rate and without termination charges? If the answer is in the negative, please explain. How many CSAs are available for resale in Tennessee at this time?
- e92. Has BellSouth evaluated e.spire’s proposed performance measures? If the answer is in the affirmative, is BellSouth willing to commit to those performance measures? If the answer is in the negative, please explain. In BellSouth’s opinion, what level of product and geographic disaggregation is appropriate. Please explain.
- e93. Is BellSouth willing to commit to penalties for nonperformance? If the answer is in the negative, please explain. If the answer is in the affirmative, what performance penalties should apply?
- e94. How does BellSouth define “local traffic”? In BellSouth’s opinion, where does an ISP call terminate? Explain the basis for this. How does BellSouth treat ISP traffic for jurisdictional, reporting, and other purposes?
- e95. Do you agree that a CLEC’s costs for transporting and terminating local traffic could be higher than BellSouth’s costs? If a CLEC were able to prove that its transport and termination costs were higher than BellSouth, would BellSouth agree that the CLEC should then be able to charge a higher rate to BellSouth for transporting and terminating local traffic? If no, why not?
- e96. Has BellSouth evaluated e.spire’s proposed number portability provisions? If the answer is in the affirmative, is BellSouth willing to commit to those provisions ? If the answer is in the negative, please explain.

- e97. Has BellSouth evaluated e.spire's proposed frame relay measurement provisions? If the answer is in the affirmative, is BellSouth willing to commit to those provisions ? If the answer is in the negative, please explain.
- e98. Please identify all services (both state and interstate) provided by BellSouth using or requiring conditioned loops. Please provide the tariff site for each such service offered pursuant to tariff, and identify where the terms and conditions of the service offering can be found if the service is not offered pursuant to tariff.
- e99. Please provide the most recent cost study corresponding to each service identified in the preceding question. For each study, identify the date prepared, the purpose of the study (e.g., to be presented in a Commission proceeding, used in conjunction with a CSA, etc.), the cost methodology (LRIC, TSLRIC, TELRIC, etc.). Provide workpapers.
- e100. Please state BellSouth's practice and procedures and provide appropriate tariff references for when a customer requests a service requiring a conditioned loop and either of the following circumstances occur:
- a. the loop(s) serving the customer is not currently conditioned.
 - b. the loop(s) serving the customer is not currently conditioned nor are conditioned loops available in the cable sheath in which the loops serving that customer are contained.
- e101. The Tennessee TELRIC includes a table of contents describing an "Appendix A" as containing a complete description of the loop types included in the sample used in the study CD-ROM made available to e.spire. Please provide a copy of "Appendix A" in hard copy and in electronic format.

- e102. If not provided in the response to a previous question, please provide the data in Appendix B for all loops and all loop segments included in Appendix A. Specifically, for each loop and sub-loop element reported in Appendix A, provide the Loop #, Circuit Id, COS, CLLI, Route Length, Item, FRC, Description, F/D, Size, Gauge Mode, PLCMT DB Level, Units and Unit inv. Please provide the response as a hard copy and as an electronic copy in a format compatible with the BellSouth TELRIC model.
- e103. Please provide a complete list of each BellSouth switch, and for each provide the CLLI and the number of residence, business and other loops (with residence, business and other summing to total loops). Please also provide the effective date of the data.
- e104. Please provide a complete explanation of how the loop sample data used in the BellSouth TELRIC Loop Model are accessed by that model. For instance, what are the instructions on the steps to be taken for the TELRIC Loop Model to access and use the loop data included in the BellSouth loop sample? What are the instructions on the steps to be taken to access and use loop data from a similarly structured data base containing a different sample of loops or a different number of loops? If additional information is needed to provide the set of instructions, please specifically identify the information needed.
- e105. With regard to loop electronics:
- a. please provide a complete explanation of how the BellSouth TELRIC Loop Model determines the material prices and dollar investment for loop

electronics by the subaccount detail that are assigned to each loop or loop type;

- b. Please provide an illustration of the method using one residence and one business loop included in the sample; and
- c. Please provide the material price and investment in loop electronics at the subaccount detail used in the TELRIC Loop Model corresponding to each individual loop in the BellSouth loop sample. In the alternative, provide the algorithms used in the BellSouth model along with all inputs that are necessary to calculate the electronics by subaccount per loop in the sample and replicate the BellSouth estimates of loop electronic material prices and investment for the average residential and, separately, average business loop.

e106. Please provide a complete copy of the BellSouth TELRIC cost study on CD-ROM containing all changes to the study procedure ordered by the Commission in its order in the generic TELRIC investigation.

e107. Please identify the services offered which are provisioned using 4-wire loops. For each, please provide


- a. A tariff cite for the terms and prices for the service and
- b. The number of units of each service in place.

e108. In the BellSouth TELRIC Model, the TELRIC Calculator is linked to an Excel spreadsheet with five command buttons linked to the BSCAP.XLS!GoToCostStudyMenu macro. This macro does not exist in the Excel

spreadsheet, so the user is unable to access the input or calculation screens. Please provide a copy of the model which includes this macro.

Respectfully submitted

E.SPIRE COMMUNICATIONS INC.

By: 

Counsel for
E.SPIRE COMMUNICATIONS INC.

Dated: March 1 1999